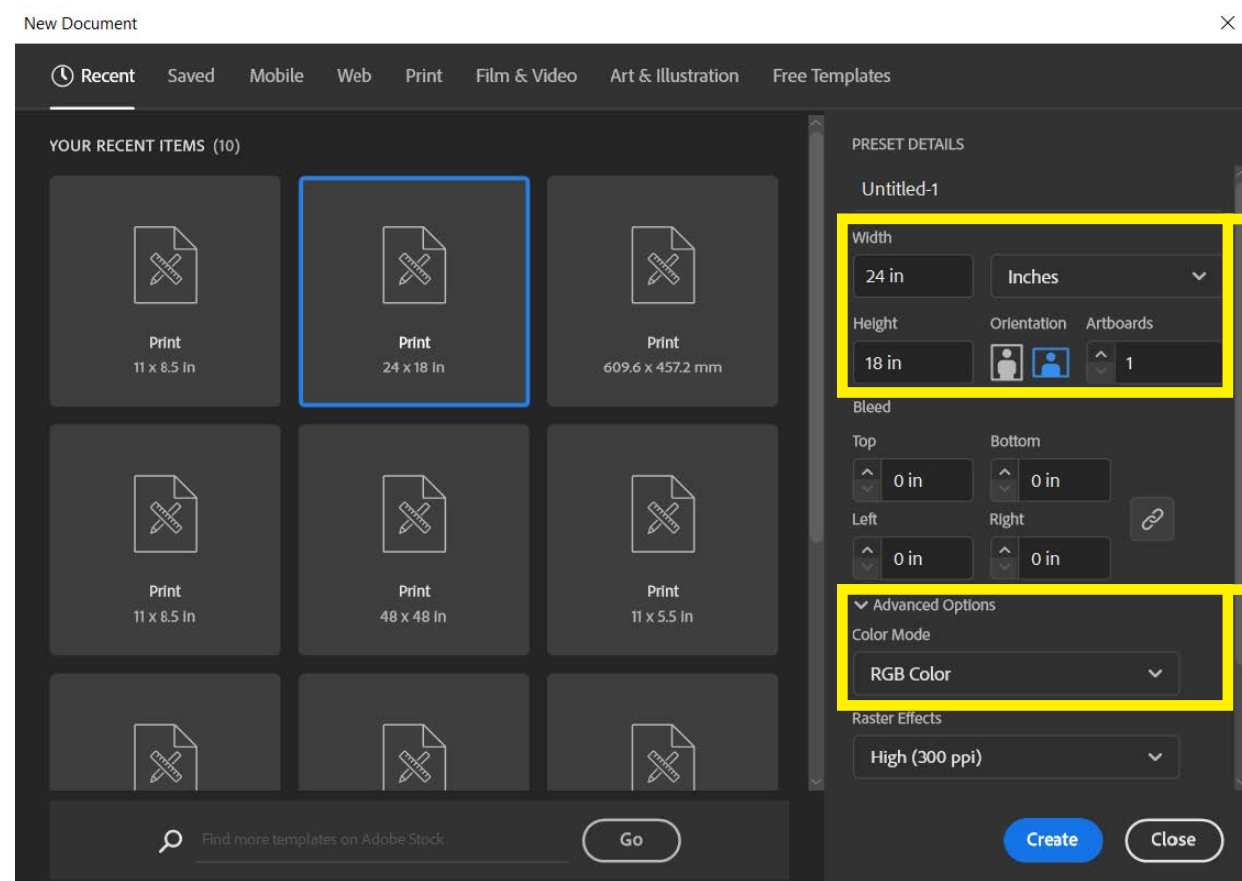# LASER CUTTING GUIDE UNIVERSAL LASER (ILLUSTRATOR)

Illustrator Set Up

When preparing your Illustrator file, please make sure the following settings are selected.

1. Set the units to **inches** and input the **exact dimensions** of your material.

2. Set the color mode to **RGB**.

Stroke Settings

To ensure your vectors are readable by the laser cutting software, please follow these exact settings in the **"Stroke"** panel. Click **Window > Stroke OR F10** to activate the panel if it is hidden.

① Set "Stroke Weight" to **0.001 pt**

② Set "Variable Width Profile" to **Uniform**

③ Set "Brush Definition" to **Basic**

Text Settings

Make sure all text in your file has been converted to outlines. To do this, right click on your text object and click **"Create Outlines"**.
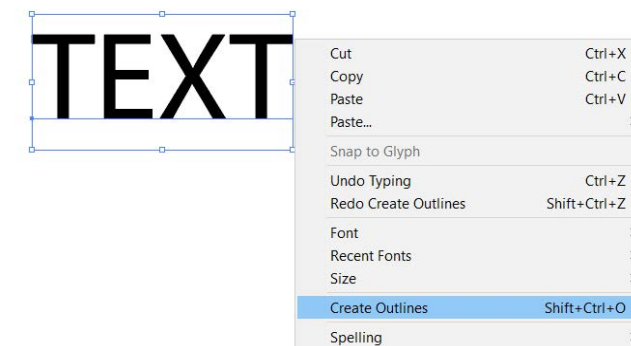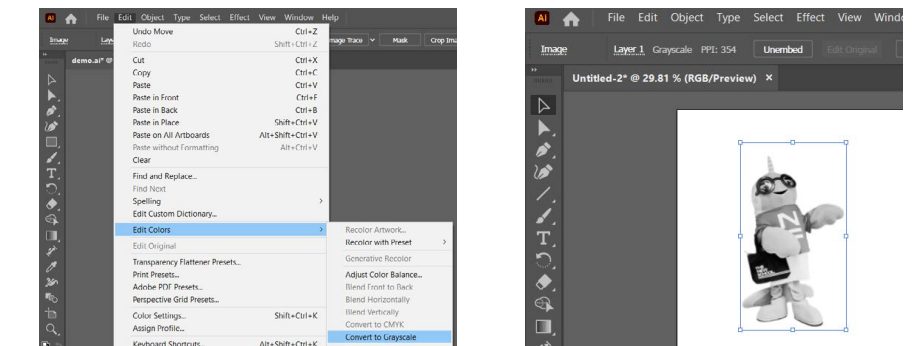

Image Settings

To raster engrave images, paste the image and convert the image to black and white using grayscale.
**Edit > Edit Colors > Convert to Grayscale**

Color Settings

Our laser cutters have 3 different operations: vector cutting, vector engraving, and raster engraving. Change the colors of your design to correspond with the operation you need for your project. For a video tutorial, visit our laser cutting help videos on our website or use the QR code.

To vector cut or vector engrave, the **fill** should be **off**, and the **stroke** should be **on**.
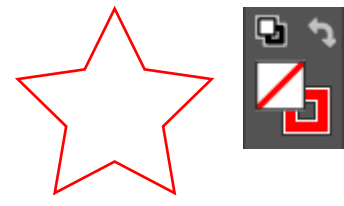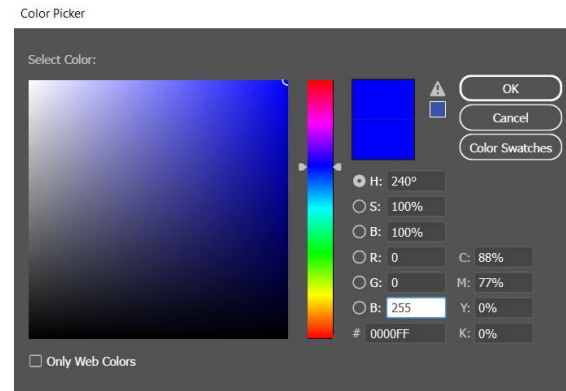To raster engrave, the **fill** should be **on**, and the **stroke** should be **off**.
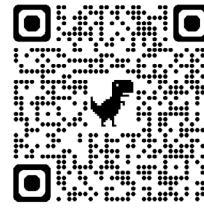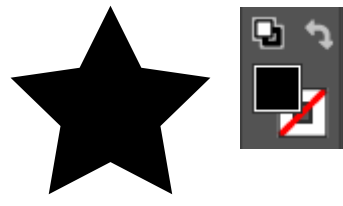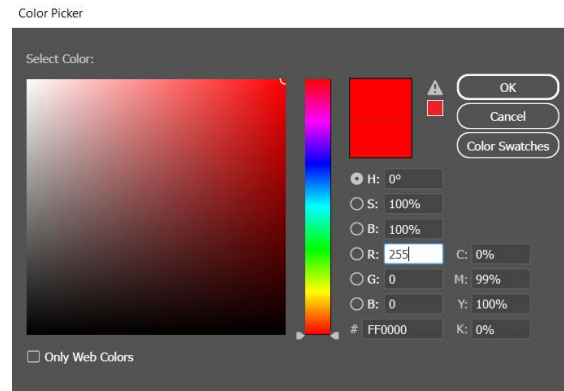
Illustrator Help Video
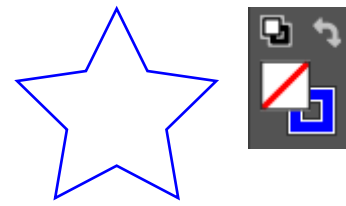
VECTOR CUT
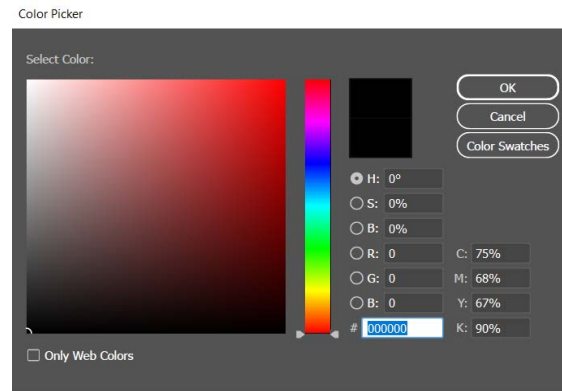
R:0 G:0 B:255
hex code #
0000FF

VECTOR ENGRAVE
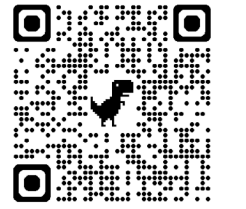
R:255 G:0 B:0
hex code #
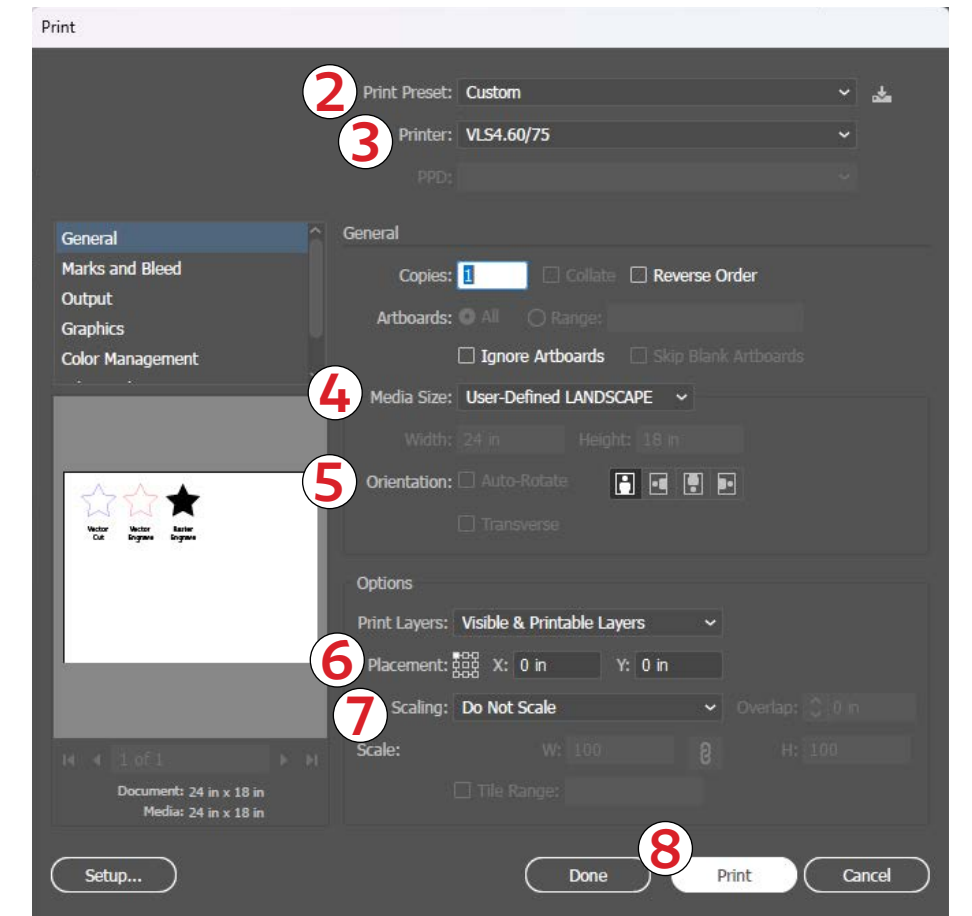FF0000

RASTER ENGRAVE

R:0 G:0 B:0
hex code #
000000

Print Set Up

1 Go to **File > Print** OR click **Ctrl + P.**

2 Set Print Preset to **"Custom".**

3 Set Printer to **"VLS4.60/75".**

4 Set Media Size to **"User-Defined LANDSCAPE".**

5 Set the **orientation** to first option.

6 Make sure the **placement** is set to the top left corner and X and Y is set to 0,0.

7 Set 'Scaling' to **"Do Not Scale"**

**8** Click **"Print".**

Print Menu Help Video

Laser Cutting Software

After you have printed or exported your design from your program of choice, open the laser cutting software by clicking the small red icon on the bottom right corner of the taskbar. It should come up in fullscreen mode.


To turn the laser cutter on, **click the red power button** on the screen and wait a few seconds. If you see the rest of the buttons greyed out, it means it is off. After clicking the red power button, the greyed out buttons should turn to color, meaning the laser cutter is ready to use and the software is connected to the machine.
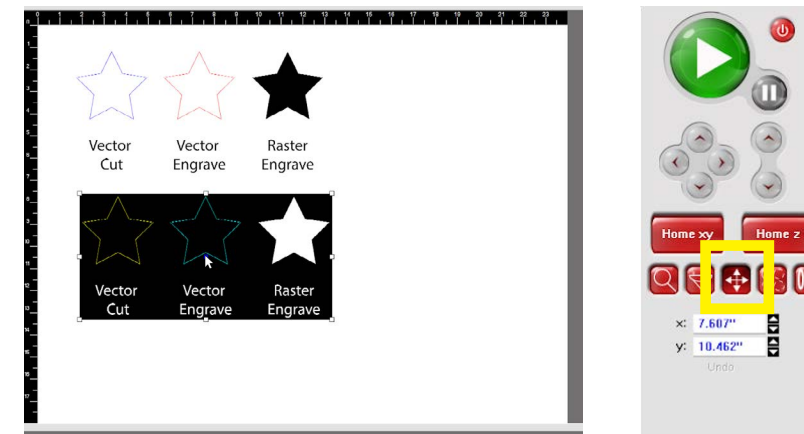
Off
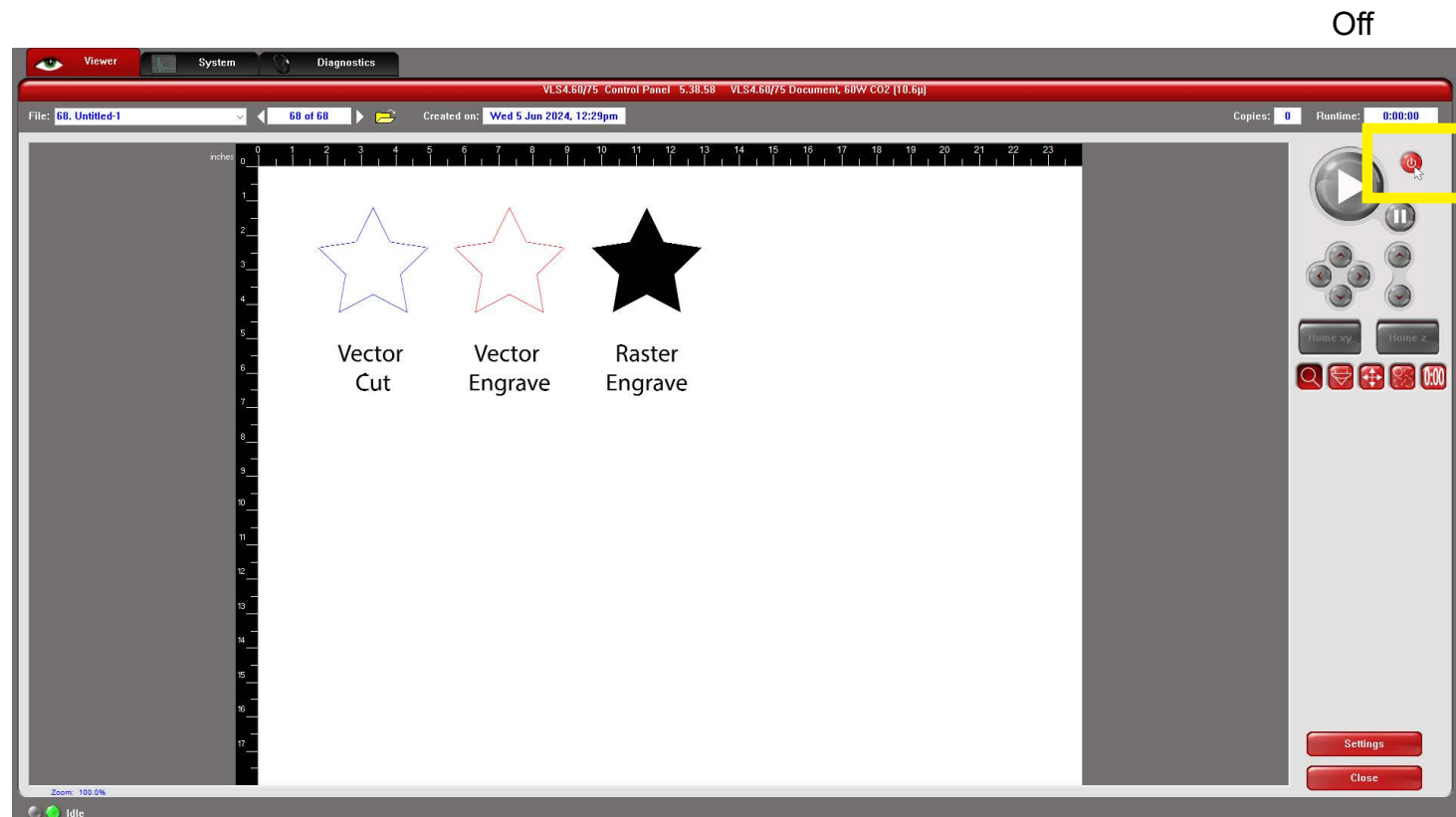
Control Panel

There are **four main functions** in the laser cutting software that will help you navigate the laser cutting process.
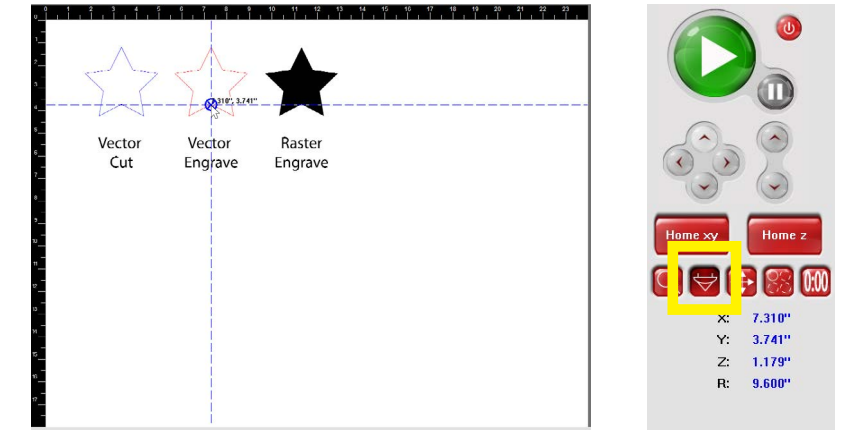
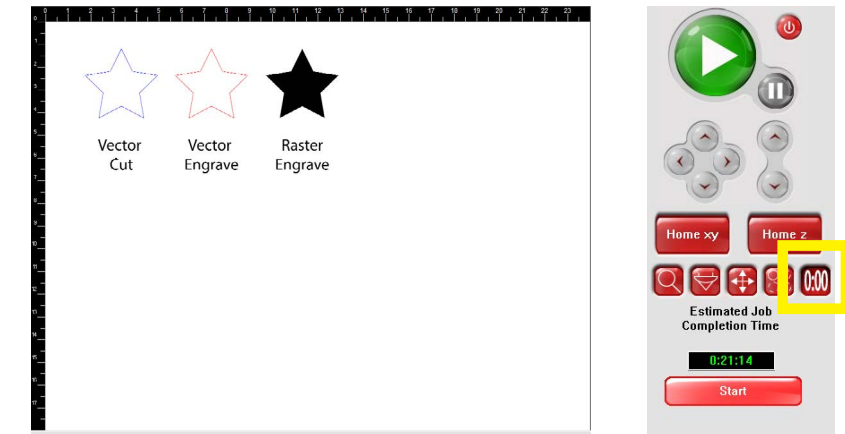**Zoom:** You can zoom in and out of the design.
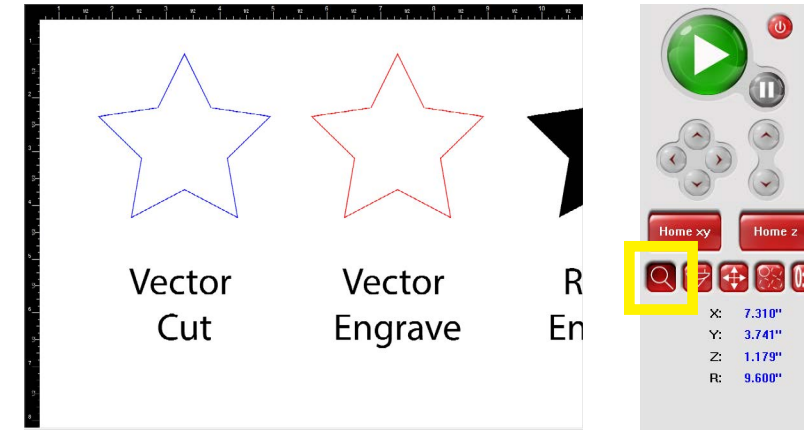
Move: You can move your design around on the page.

Focus view: You can click anywhere on the design to send the laser head to those co-ordinates.

Time Estimate: After loading the material settings, you can run an estimate on how long the cut will take.
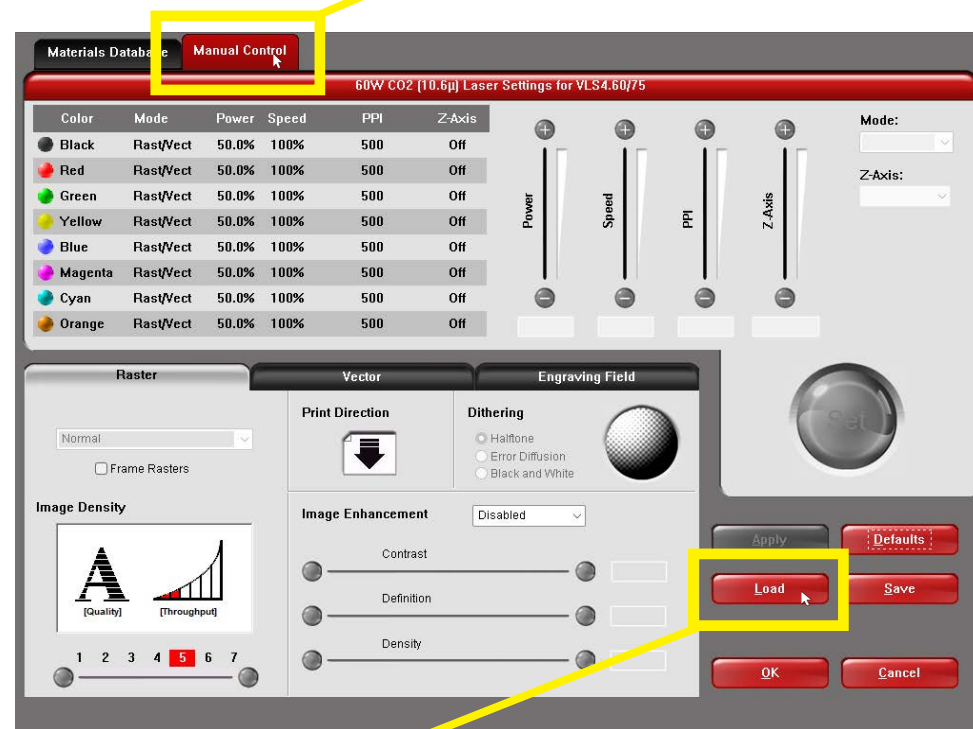
Loading Material Settings

1 To load the settings for your material, start by clicking **"Settings"**.
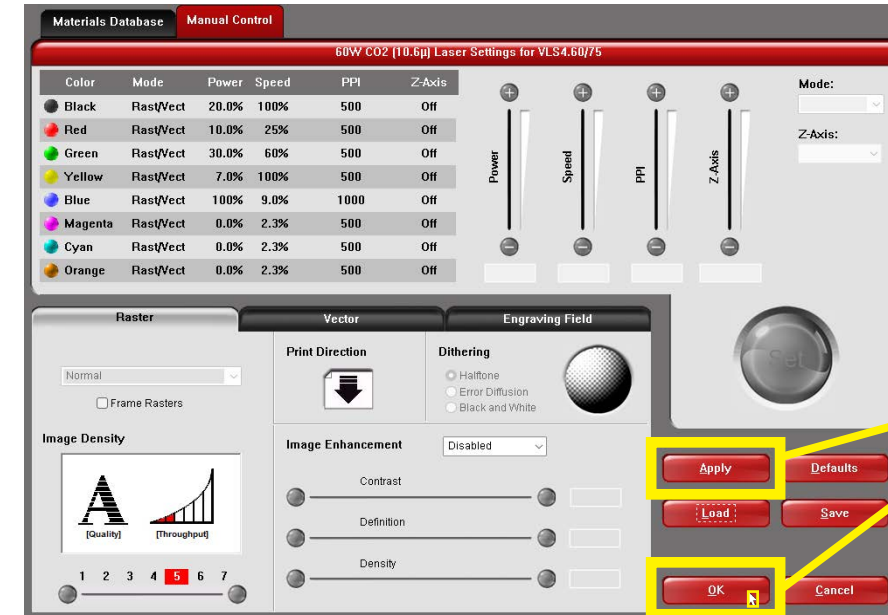
2 Make sure **"Manual Control"** is selected.
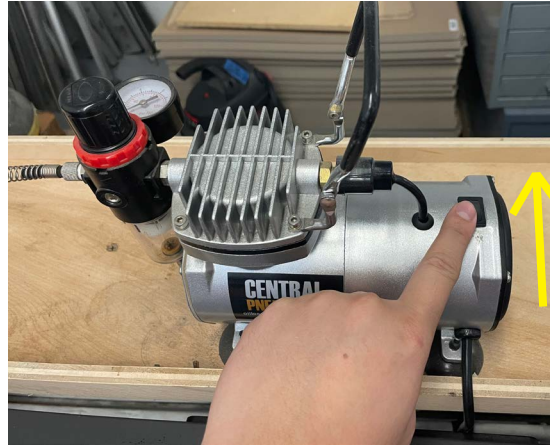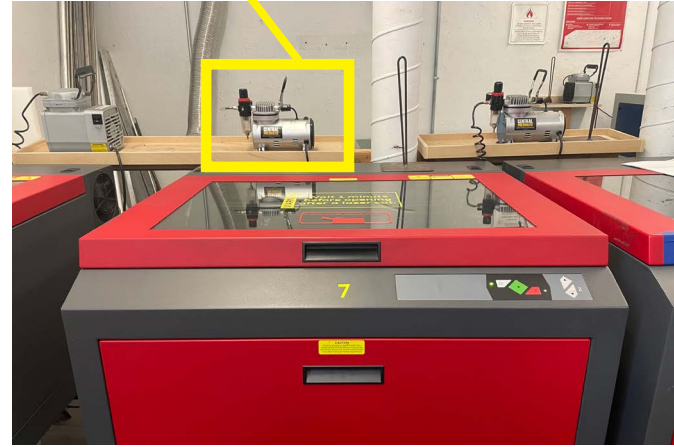

3 Click **"Load"** to open the laser presets.
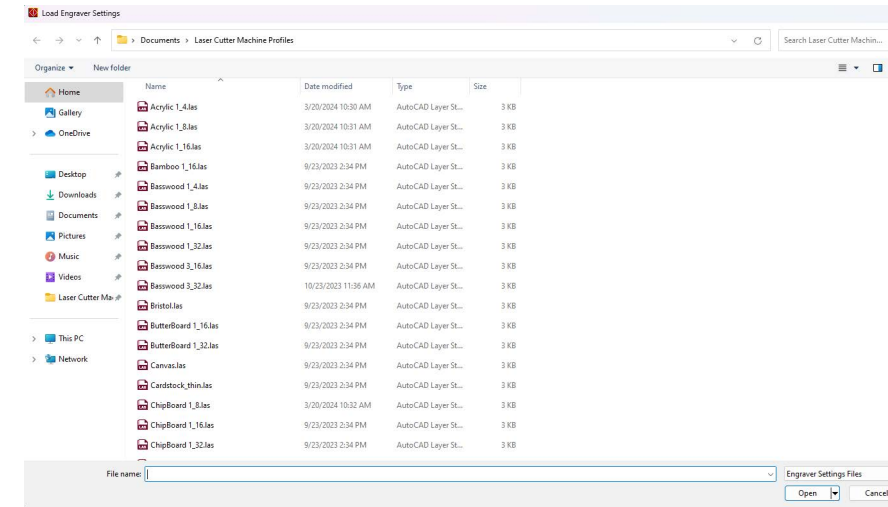
4 Select the preset that matches the material you are cutting. Click open to confirm. If the material you are using is not listed, please consult a technician.

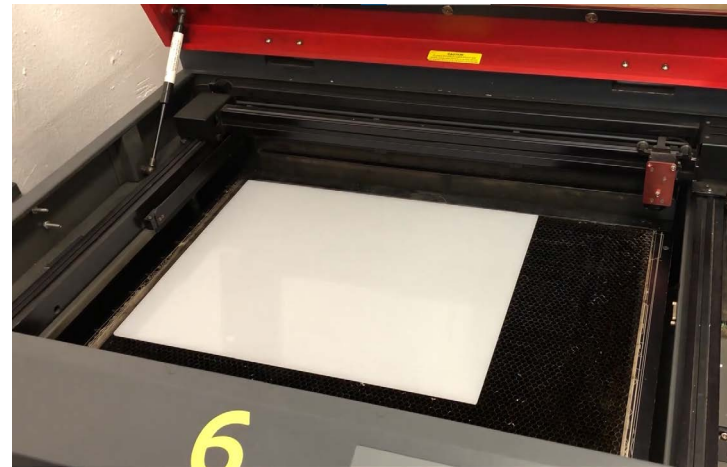**5** Once your material setting is confirmed, click **"Apply"**, and then **"OK"**.

Machine and Material Set Up

(1) Turn on the **compressor**.

Push button this way to turn on

(2) Peel off **any paper or coating** you have on your material and place it in the **top left corner**.

(3) Use the **"Focus View" button** on the control panel to double check that your design fits on your material. Click on the place you want the laser to go. While the lid is open, there will be a red laser pointer indicating where you have clicked on the file in the laser cutter software. Speak to a technician for help if the bed is misaligned.
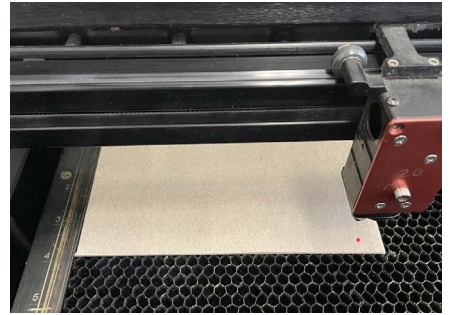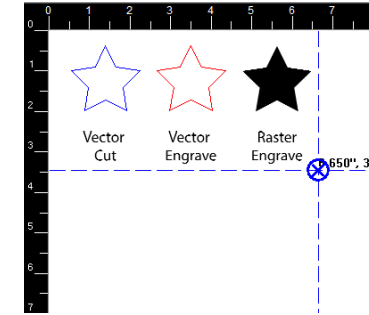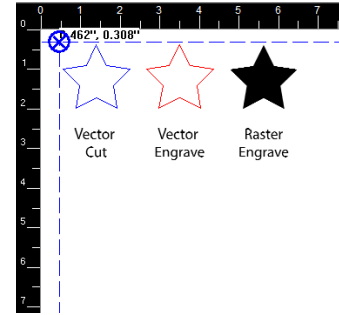
(4) Make sure your **material is as flat as possible** to achieve best cutting results. You may use weights, clips or tape to flatten your material but make sure they are not in the path of the laser cutter.
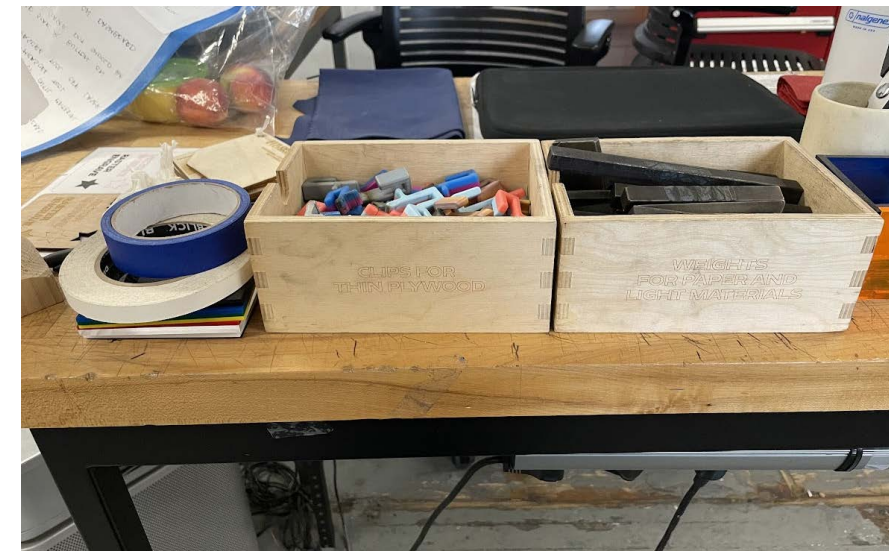
Machine and Material Set Up

① Use the **"Focus" function** on the control panel to **move the laser head** to a space on your material. Click on the place you want the laser to go.
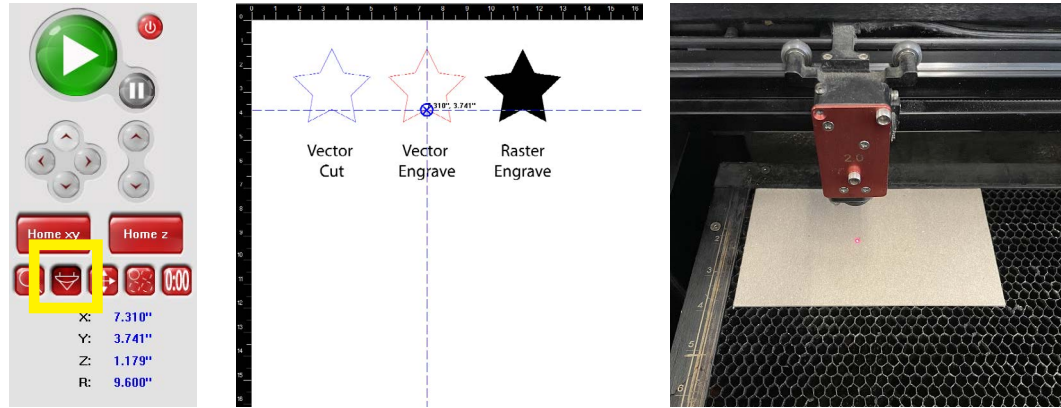
② Use the **Z arrow keys** to move the bed down.

③ Clip the focus tool onto the **middle screw** of the laser head.
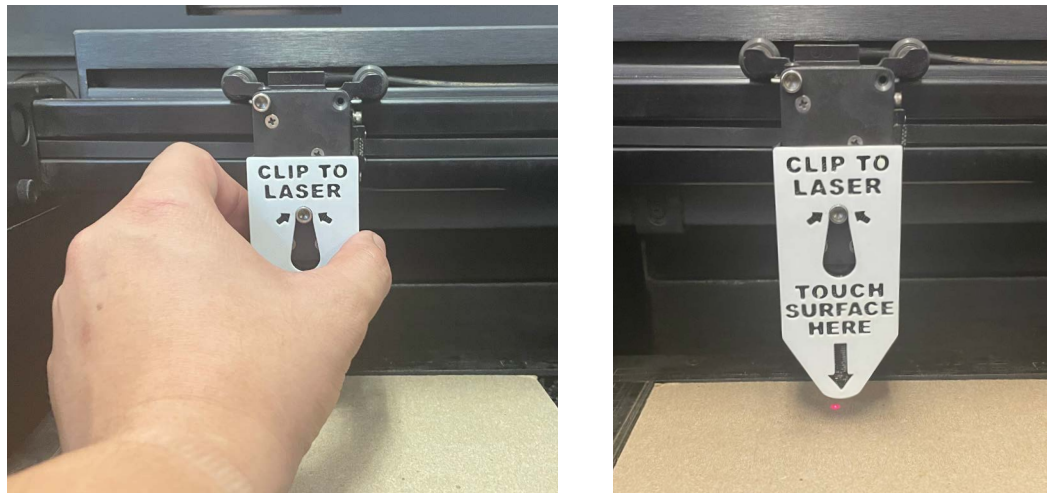
④ Use the Z arrow keys to move the bed up **until the tip of the tool just hits the surface**. If the screw starts moving down the gap, it means you are too close and need to move the bed back down.

⑤ **Take the tool off the laser head** and close the lid slowly and carefully. Your file is ready to cut!

How to Play/Pause

Runtime: 0:00:38

The **play button** will always start any file **from the beginning**. Click it when you're ready to start cutting your file.

The **red pause** button will **pause/stop** the file if it is currently cutting.

Runtime: 0:00:03

Once it is paused you can **resume** by pressing the **red button** again.

Runtime: 0:00:38

Resume

Frequently Asked Questions (FAQ)
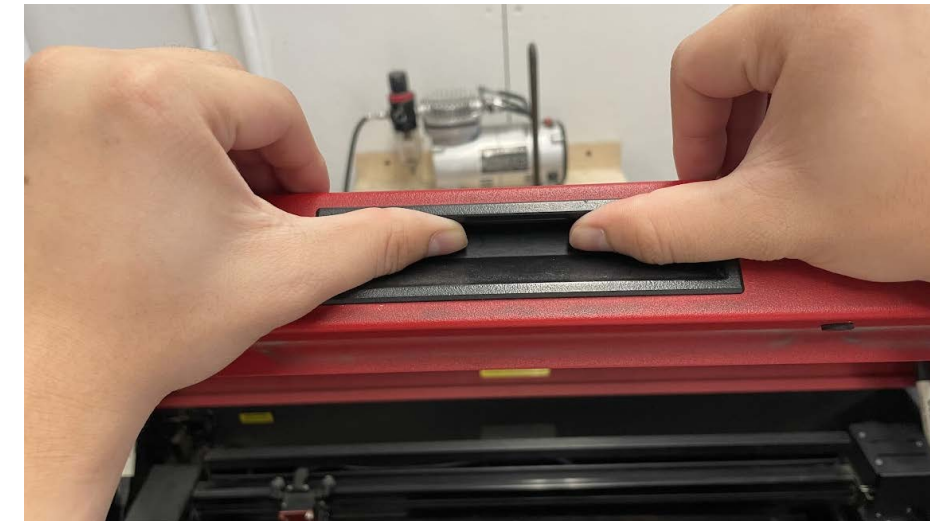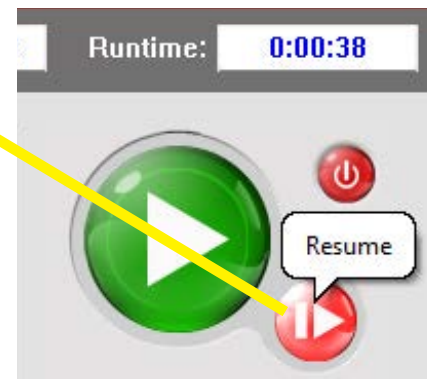
Q: How do I know if the laser has cut through my material?
A: Hold down your main material and try to lift the cut out parts with some tape or a knife. If it does not move, DO NOT move the material and press play again. Consider deleting the parts of your design that have already been cut to save time on your second cut.

Q: My lines in Illustrator won't stay 0,0,255 Blue (they stay a different kind of blue, or stay black)?
A: Make sure your Document Color Mode (File > Document Color Mode) is 'RGB Color'. If it is and it's still not working, have your lines selected, go to Window > Color, select the drop-down menu icon on the Color Panel, select 'RGB'.

Q: Some of my lines aren't appearing on the Laser Control software.
A: Speak to a tech. Filters, Clipping Masks, Opacity settings and other file adjustments can cause artwork to disappear on the laser control software. Otherwise, someone might have just 'Skipped' that line color while previously using that computer.

Q: How do I manually change speed and power settings, or skip a color?
A: Speak to a tech if you have never manually changed the speed or power settings on the laser cutting software before. While choosing your material settings, after you have chosen a material preset but before you have pressed 'Apply' and 'OK', select the color you want to change or skip, change power/speed settings or select 'Skip' from the 'Mode:' drop-down menu, select 'Set', select 'Apply', select 'OK'.

Q: Can I raster engrave in grayscale (black & white)?
A: Yes. The black (0,0,0) parts of your grayscale image will raster at full power, anything in the grayscale will raster with power according to how close to black it is. Consider the color of your material, if it is light colored, then you may need to invert the colors on your file so that you achieve your desired effect.

no power ⟷ full power